

# INFORMATION REPORT INFORMATION REPORT

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THIS IS

55 page manual in English entitled Combat Activity of Fighter Air Regiment while Protection of Army. This manual was used in Czechoslovakia in an air force training course

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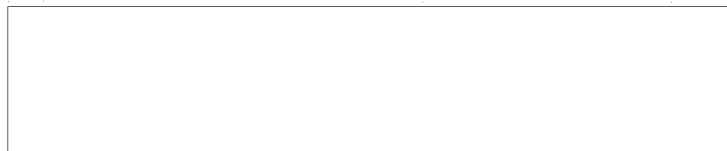
**Combat activity of fighter air regiment  
while protection of army**

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COMBAT ACTIVITY OF  
A FIGHTER AIR REGIMENT  
WHILE PROTECTION OF ARMY.



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The contents:

Task and post of fighter air regiment while protection of army and rear objects, kinds of combat activity, combat abilities and dislocation of fighter air regiment while fulfilling task of protection of army and rear objects. Organization and preparation of fighter air regiment for combat activity. Preliminary and before-flight preparation of pilots. Specialities of leading and cooperation of fighter air regiment with regiments of fighter air division and fighter airforce of neighbours. Specialities of combat, material and special provision of fighter air regiment.

Introduction.

After the World War II military science has gone through revolutionary changes which interfered in all the branches of armed forces and have had substantial influence on making wars. Passing on new, more effective weapons, development of combat technique and complete motorization and mechanization of troops and development of pilotless means of air attack cause not only changes in way of making wars and leading operations of armies but also changes in use of airforce.

The main characteristic feature of up-to-date fight is destroying of enemy's airforce and pilotless means of air attack on ground. This fight is lead with the purpose to protect army's troops, dislocation of airforce and bases of pilotless means before blows of air enemy and before its air reconnaissance.

But in spite of this unceasant fight with enemy's airforce and pilotless means of air attack it is impossible to destroy all the enemys' ~~air~~ aircrafts and pilotless means of air attack. Armies will be still exposed to blows of the hostile airforce and pilotless means of air attack, which were not destroyed on airfields and launcher bases or which were transferred from another part of battlefield. Fight with these means must be led by fighter airforce and by means of air defence of armies and rear objects by destroying them in air.

The task of this lecture is to get you acquainted with the combat activity of fighter air regiment determined for protection of armies and rear objects. Furthermore it is to acquaint you with the rules of use of fighter air regiment under various air raids of hostile airforce and pilotless means of air attack, with rules

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of cooperation, leading and controlling combat activity of fighter air regiment.

I. Organization and combat structure of a fighter air regiment.

Fighter air regiment as well as regiments of other branches of airforce is the basic tactical formation. Besides that, it is the first organizational and administrative formation of fighter airforce that has staff of its own.

Fighter air regiment is a part of air tactical division, fighter air division, fighter air division of fighter airforce of air defence of state, naval airforce or of long-range airforce. In all these cases organization of fighter air regiment is analogous.

A fighter air regiment consists usually of three fighter flights and one leader's squad.

A fighter air regiment can be equipped either only with airplanes of type Mig 15 bis or Mig 17 F, determined for daily combat activity or with airplanes of type Mig 17 PF determined for combat activity under worsened atmospheric conditions and in the night (raid fighter planes) or eventually also by both the types of fighter planes. For instance one flight can be equipped with planes of type Mig 17 PF and two flights with planes Mig 15 bis or Mig 17 F.

To a formation of fighter air regiment further belongs:

- the staff of an air regiment with the chief of staff;
- chiefs of services, e.g.: engineering-airforce service with the engineer of regiment.

In head of a fighter air regiment is commander of regiment who is direct chief of all members of regiment and bears full responsibility for combat and mobilizing readiness of regiment, for preparation and organization of combat activity, for firm and continuous commanding the flights and for successful fulfilling of the given tasks.

A fighter air regiment can have totally 40 up to 50 combat pilots and 38 up to 40 combat planes. It is usually located on one operational airfield and from the viewpoint of material provision and airfield service it is to be ensured by an airforce base which is usually not a part of a fighter air regiment and it is subordinate to the commander of a fighter air regiment during time when the concerned fighter air regiment is under its material base.

Organization of a fighter air regiment is drawn in the supplement No. 1.

## II. Determination and tasks of a fighter air regiment.

Determination and tasks of a fighter air regiment result from determination and tasks of fighter airforce as a whole.

Fighter airforce is determined for destroying planes and pilotless means of air attack of enemy in air and eventually on airfields, launching bases and starting areas.

So a fighter air regiment is determined for destroying hostile planes and pilotless means of air attack and on airfields (launching bases, starting areas). So a fighter air regiment takes role on fulfilling the most important tasks of fighter airforce, on fight for superiority in the air.

Fight for superiority in air is not self-purposeful for the fighter airforce, it is only a means for protection of army and various military and industrial objects against blows of hostile airforce and pilotless means of air attack and against air reconnaissance and it is a means for ensuring activity of other branches of airforce.

Taking part on fight for superiority in air, a fighter air regiment can fulfil a few concrete tasks:

- protection of army, airborne troops, important objects of operational rear and objects of state territories against air reconnaissance and blows of hostile airforce;
- ensuring of combat activity of other branches of airforce against air reconnaissance and blows of hostile airforce on ground and in air.

Besides these tasks a fighter air regiment, like the fighter airforce as a whole, can take part in destroying and neutralization of manpower and hostile technique on battlefield as well as fulfilling tasks of air reconnaissance.

Fighter air regiment fulfils the above mentioned tasks usually within tactical air division. In some cases one of regiments of tactical air division can fulfil one task and other fighter air regiment of tactical air division further task of fighter airforce.

A fighter air regiment gets usually the combat task of protection of army or rear object for a few days. This combat order can be made more accurate in course of fight according to combat activity of army.

A fighter air regiment of frontal airforce fulfils tasks of pro-

tection of army from operational airfields which are 50 up to 100 km far from the line of front. The task of protection of rear objects is fulfilled usually from airfields located in depth about 150 km. On one operational airfield is usually located one fighter air regiment. A fighter air regiment is besides the operational airfield given an airfield for manoeuvring from number of reserve airfields or airfields belonging by their activity to the airfield centre of tactical air division.

Important role for combat activity of air fighter regiment has its dislocation on the operational airfield.

Dislocation of a fighter air regiment on the airfield must ensure:

- 1 - the minimum time of taking the combat readiness of regiment and start (take-off) of the planes;
- 2 - reliable covering and suitable use of combat technique and material means;
- 3 - suitable and safe dislocation of persons;
- 4 - organization of continuous command;
- 5 - conditions of the best organization of defence, protection and camouflage and
- 6 - continuous readiness for transferring the fighter air regiment.

The most complicated question of dislocation of a fighter air regiment on the airfield is ensuring protection of air technique in conditions of danger of atomic attack while keeping the minimum time of combat readiness of the regiment and takes-off of the planes.

In interest of protection of the material against effects of an atomic explosion, it is necessary to disperse the planes by squadrons in dispersed areas in average distance 2 up to 2.5 km from the centre of runway. Dispersion of planes in dispersed areas is to be carried out with using out the protective properties of the ground (reverse slopes, behind woods, etc.).

In dispersed areas, the planes are to be located chessboard-like with lateral distances of 75 up to 100 m. Such a dislocation of fighter planes on airfield considerably decreases combat readiness of the fighter air regiment and therefore it is necessary to locate into dispersed areas only those planes which are not determined for fulfilling the combat tasks in the time being (e.g. under worsened atmospheric conditions, the planes the crews of which are

not prepared for combat activity under these conditions).

The planes acting out of readiness on airfield of readiness No 1 and 2 are to be located in readiness areas near the runway (of one or both the ends of it) and the planes prepared for repeated take-off in readiness areas far 200 - 400 m from the runway. The stands must be protected against effects of explosive and high-explosive bombs as well as against gun fire of hostile planes.

II. The tasks of a fighter air regiment determined for protection of army and rear objects.

The fighter air regiment determined for protection of army or rear objects can in cooperation with the other regiments of the division fulfil following tasks:

- to destroy planes and pilotless means of air attack in air;
- to protect army on battlefield in determined space of combat activity, in areas of its assembling and while movement;
- to protect dislocation of airforce, bases of pilotless means of air attack and other rear objects against air reconnaissance and blows of hostile airforce and pilotless means of air attack;
- to protect army in area of location of own airborne troops;
- to destroy hostile airborne troops while flight and in area of their location;
- to interlock from air the enclosed hostile troops;
- to cooperate with the other regiments of the air division while repulsing the hostile strategical airforce and pilotless means on accessible ways to objects of the operational rear and state territory and
- to lead air reconnaissance in benefit of fighter and the other branches of airforce and army.

The main task which will be fulfilled <sup>by</sup> the fighter air division depends on the task which will be fulfilled by the tactical air division. If the tactical air division is located in the first line (in depth of 50 km), the fighter air regiment will mostly protect army in tactical depth. If the fighter air division is located in the second, eventually in the third line, then the fighter air regiment will protect mostly assemblies of army and rear objects in operational depth.

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While fulfilling the above mentioned tasks of protection of the units, the units of fighter air regiment can be used while danger

of delay for destroying and neutralizing localities of pilotless means of air attack, planes on airfields and eventually other combat technique on battlefield.

### III. Forms of combat activity of a fighter air regiment while protection of army and rear objects.

While fulfilling the concrete tasks which are in touch with protection of army, and also important rear objects, a fighter air regiment uses following main forms of combat activity:

- raid of air targets out of barraging
- raid of air targets out of readiness on airfields.

#### a) Raid of air targets out of barraging.

It is the basic form of combat activity while protection of army because it most ensures destroying of quick very low or very high flying targets earlier than they reach the area of dislocation of protected troops and rear objects.

This form of combat activity is mostly used in fighter air regiments protecting the first lines of army, in the rear area while large assemblies of army while expected blows of hostile airforce and while use of pilotless means of air attack in mass.

While barraging the fighters have to take-off according to in advance elaborated plan and they are in readiness to meet with the enemy on access ways to troops and objects. The zone of barraging of a fighter air regiment is chosen according to the situation above the enemy's own territory.

With respect to consumption of fuel it is advantageous for the turbo-reactive fighters to barrage in middle and large altitudes what considerably prolongs time of barraging and enables them to interfere against targets in any altitude. While protection of army the fighters must at first interfere against targets flying in small and middle altitudes and therefore the most advantageous are altitudes from 3000 up to 7000 m.

Experiences with the planes Mig-15 bis and MIG - 17 have shown that while location of airfield 50 km from the front line and when fulfilling the tasks in squadron, the group can barrage in altitude 5,000 m more than 40 minutes and in altitude 10,000 m about 1 hour and five minutes. A squadron in height 10,000 m can barrage 40 up to 50 minutes without using the auxiliary reservoirs. In both cases is taken into consideration 10 minutes for the air flight and 10 % safety reserve for fuel.

It is not advantageous to barrage in groups larger than in squadron, with respect to the manoeuvring possibilities as well as with regard to shortening the time of barraging. If the combat situation desires presence of larger number of planes, then it is to carry out barraging in a few zones of barraging which are mutually in connection.

In every zone of barragins there are 8 up to 10 planes. The most advantageous zone of barraging has dimensions 40 x 40 km. The fighters can in some cases barragem even freely, in larger area, controlled by instructions from the command post.

Number of fighters in individual zones of barraging, as it has been mentioned formerly, depends on activity of the hostile airforce and on atmospheric conditions.

While strong activity of enemy and at normal atmospheric conditions it will barrage 10 up to 12 planes. If the hostile airforce is flying in small groups or if the protection is carried out under worsened atmospheric conditions, so in the given case there will barrage squad or a pair.

Barraging desires a considerable consumption of forces especially when it is performed a longer time. Further disadvantage of barraging is that the enemy can easily follow the barraging fighters and by concentrating larger forces to force them to fight, or even repulse them.

Because of these reasons it is advantageous not to organize barrage continuously but only from time to time and not to bind the fighters to a very limited space and altitude. The most successful is combination of various forms of combat activity as e.g. barraging of fighters on call - combination of readiness on airfield and barraging. The fighters determined for barraging are in readiness on airfield and in case of emergency they fly into space of barraging according to the decision and order of the commander of fighter air regiment.

With respect to the fact that large consumption of forces of barraging fighters desires to barrage with the minimum number of fighters, it is necessary to ensure possibility of support of barraging fighters by further ones of readiness on the airfield.

Combat formations of a fighter air regiment while barraging for protection of army, i.e. while repeating air fight with hostile bombers without escort of fighters and with hostile bombers with fighter escort, are formed of blow group and of protection

group, and in case of necessity also of the reconnaissance pairs. These tactical units must not be bound each to other as to units of the combat formation. So e.g. the protection group can fly with respect to the assault group in mutually crossing courses. The most advantageous elevation of the protection group is elevation 1,000 - 2,000 m above the assault group.

In cases of necessity, when it is not ensured a sufficient number of information about the enemy, the leaders of barraging groups can send forth in front of the barraging zones or into the space of dislocation of hostile airforce reconnaissance pairs the task of which is to warn before approaching hostile planes and interfere against low flying targets.

b) Raid of air targets out of readiness on airfield is the most spread out and the most economical way of combat activity of the fighter airforce. Raid of hostile air targets means encounterment of own fighters with hostile planes and pilotless means of air attack on access directions to protected troops or objects, namely by taking-off of the fighter groups which are on the airfield in readiness No 1 and No 2.

Number of starting planes is determined by the commander of the fighter air regiment or fighter air division according to magnitude and character of the air target as well as according to the number of readiness forces of the fighter air regiment and eventual possibility to concentrate a large number of fighters in air in one direction.

Success of raid of hostile planes out of readiness on the airfield depends on timely ensuring air targets of the enemy, correct determination of time for take-off of fighters, on distance of the airfield from the front line and on suitable dislocation of fighters on the airfield.

While protection of army, the raid of air targets out of readiness on the airfield is a necessary way of combat activity. Even when it does not ensure encounterment still before crossing the front line (low-flying targets, antiradiolocating masking of the enemy's flight), it can be a very effective means for increasing the forces of barraging fighters. the fighters in readiness can be also called for

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effective means in this case, when encounterment takes place at such a distance in front of the front line which enables carrying out at least of one up to two successful assaults on the hostile planes which makes them leave further intended task. While speed of up-to-date planes time of carrying out of one up to two assaults represents a distance flown by the hostile group of 40 up to 50 km. When consideration and dividing the time it is to ascertain a hostile group and give the report of it within 1 up to 2 minutes, to start, assembly and flying to the line of encounterment 8 - 9 minutes and so the total needy time for a squad is 9 - 11.

While this time the enemy has flown at speed 600 km/hour distance of 90 - 110 km and while speed 900 km/hour distance of 135 - 165 km. It means that it is necessary to ascertain the hostile targets in distance at least 165 km from the airfield of the fighter air regiment and at least 115 km from the front line in order to ensure protection of army in way of combat activity of the fighter air force out of readiness on the airfield.

Necessary distance of ascertaining the targets 115 km from the front line is an ideal distance. When we add to it the effect of radio-locating jamming and deceiving of the enemy it is clear that intervention of the fighter out of readiness would come late.

From the above mentioned consideration it follows that disadvantage of this way of combat activity while protection army is delayed intervention against low flying targets, quick targets, very high flying targets and fighter-bombers located near the line of the front. In the same way will be worsened the intervention of fighters against air targets in the case when the enemy realizes antiradiolocation washing of its flights.

From the mentioned consideration further follows that concentrated blow of groups larger than squad cannot be effective with respect to long time of assembly. Because of that reason blow of a longer number of fighters than a squad will have character of succeeding blows of a squad. Concentrated blows of fighters in formation of a squadron or a regiment will be exceptional, like e.g. blow against air-borne troops or which protection of rear objects under conditions, when for assembly of these group is time enough.

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Important element of decision of the commander of a fighter air regiment fulfilling independently task of army protection out of readiness on the airfield, is correct determination of degree of readiness and number of readiness forces. For this readiness to be unceasing and for continuous changing the crews in readiness and at the same time even fulfilling of combat flights out of this readiness the fighter air regiment fulfilling an independent task which takes a long time, can have at the same time in readiness No 1 only one squadron. Whole the regiment can be in readiness No 1 only for a limited time of two hours, than it has to pass on the readiness No 2 or 3.

With respect to the chosen way of the combat activity (blow in mass, activity after lines), the character of air target and atmospheric condition the fighter air regiment has to use various combat formations.

For repulsion of raid in mass of bombing planes of fighter-bombers the commander of the fighter air regiment has to choose such a combat formation which fits to performance of concentrated blow. The most advantageous for this task is the combat formation divided to two groups of tactical determination, to the protection and assault group. The assault group is formed by 2/3 of forces while the protection group by 1/3 of forces. If there is not on the assembly of regiment time enough, it is necessary to choose such combat formation which enables activity of the regiment line by line. Such a combat formation consists of combat formations of squadrons formed to depth and height, and it enables increase of forces in fight with the hostile planes.

With respect to limited possibilities of above mentioned way of combat activity in up-to-date combat conditions, the fighter airforce in cooperation with other branches of airforce can take part in further, more active, ways of combat activity, e.g. destroying hostile planes on airfields, destroying radiolocating and radio stations, and further combat activity with task of independent seeking and annihilation of air and ground targets.

While fulfilling these tasks the fighter airforce indirect protects army by weakening the general potential and possibilities of the hostile airforce.

#### IV Rules of combat usage of a fighter air regiment while repulsion of various targets and under various conditions

Air fight is the main contents of the combat activity of a fighter regiment and the main means for protection of army, for while fulfilling this task the air fight is expected.

Nowadays group air fight has still kept its meaning and importance, for in fight in air with a hostile group individual fighter can only rarely achieve the needy results.

However, fight of individual fighter is nowadays still very important, especially while annihilation of air targets in the night or under worse atmospheric conditions as well as while destroying the pilotless means of air attack.

Even when air fight of fighters in large groups is not so often, in some cases can arise necessity of start and intervention of whole the fighter air regiment (e.g. while repulsion of raids of a larger number of smaller groups or while annihilation of the hostile air-borne troops). Air fight of the fighters in group of regiment is very complicated, and it therefore desires for all the numbers of the regiment to understand clearly to carried out task and aim of the activity.

Air fight demands especially careful preparation of the regiment commander and members of the staff which can be achieved:

- by timely getting of as far as possible complete informations of air situation in the space of the next activity of fighters and along the route of flight;
- by careful elaboration of possible variants of assaults and of the total plan of air fight already on the ground;
- by readiness of pilots to lead group air fight with mixed groups even with hostile bombers without fighter escort.

For successful carrying out this task, it is necessary to determine in advance and to drill the plan of possible variants of air fight. Its task is timely divide duties to groups of the combat formations at various cases of air fight, and it follows the aim to shorten and simplify command of the commander of fighter air regiment, for in course of air fight he has not time to issuing detail orders to the commanders of squadrons.

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Air fight depends on the character and structure of target, and it can be, while fulfilling the task of protection, divided to:

- airfight with individual planes
- air fight with bombers and fighter-bombers of enemy
- air fight with mixed groups enemy.

a) Air fight with individual hostile planes:

It is to be led either

- by raid out of readiness or
- by raid out of barrying.

At every fighter air regiment determined for protection of army and rear objects is usually determined for fight with individual planes one or two pairs of fighters in readiness No 1 or 2.

Air fight with individual planes will be usually led by the commander of tactical air division, namely in case, when all the division is determined for protection of army or rear objects. Exceptionally fight with individual planes will be led by the commander of the fighter air regiment in cases of large number of individual hostile planes.

For fight with individual hostile planes flying in large or stratospheric heights the fighter air regiment can be equipped with a few fighters of a large climbing ability and speed.

If the fighter air regiment protects in the time of raid army by barraging so them for fight with individual planes and pilotless means the commander of the fighter air regiment (division) has to use at first fighters from barraging. Thus is ensured longer time for controlling and realizing of encounterment.

Individual hostile planes which have been separated from the group of the hostile planes, attack at pairs determined from the fighter formation which lead fight with the hostile group.

b) Air fight with fighters, bombers and fighter bombers of the enemy

Great blow force enables for a fighter air regiment to lead a successful fight with the same number of hostile fighters, bombers and fighter-bombers.

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Fight with hostile fighters either out of barraging or out of readiness on airfield is characterized by dividing the group of fighters to individual squadrons (squads), which are to be deployed to width, height and eventually also to depth with the aim to ensure active actions already on the very beginning of fight. In course of fight the commander of the fighter air regiment (division) ensures cooperation among individual squadrons (squads) of the fighter air regiment by gradual increasing of forces, by support in fight and by mutual protection.

Fight with hostile bombers or fighter-bombers

While air fight with hostile groups not protected by fighters of escort, there can be made only a assault group, but when we expect intervention of hostile fighters, it is necessary for a part of that group (group of protection) not to interven in the air fight, but leave it as a reserve ensuring the blow group before unexpected surprise. This group is bound in fight with hostile bombers and fighter-bombers not sooner then is eliminated possibility of surprise by hostile fighters.

Carrying out of assault at bombers (fighter-bombers) changes according to the type of those planes and shape of their combat formations. If a regiment enters a fight with a group of bombers which is divided unit by unit to depth, then the regiment squadrons have to carry out assault at the bombers gradually one after the other, or at the same time of various directions in directions parallely crossing each the other.

If the hostile bombers (fighter-bombers) fly is a group deployed in space we can carry out a concentrated attack at them with using at the same time performed assault of squadrons. The squadrons in such a case will attack at the same time on the main groups of the hostile combat formation.

If all the squadrons cannot take on the initial position for assault at the same time, or if it is not advantageous with respect to the hostile group dimensions to realize assaults at the same time (while narrow combat formations), it is advantageous to use concentrated blow with successive assault of squadrons.

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Every squadron which takes part in the successive assault has to carry out assault at the attacked target at the same time. If we want to achieve incessant fire effect on the enemy, the distance between the squadrons must be 800 up to 1500 m. The first assault is performed usually with the squadron led by the regiment commander.

c) Air fight with mixed groups of the enemy

While activity against the group of enemy with protected fighters the combat formation of the fighter air regiment is divided to assault group and protection group.

Assault at hostile planes is started by the assault group at first by attacking the leading units and mainly of commander's planes with the aim to desorganize the formation of the hostile planes, to make impossible commanding them and to form conditions for further annihilation of the group, part by part. The first assault on the hostile group must be rapid and destroying in order to enable annihilation of dispersed individual planes while further assaults.

The hostile fighters protecting the bomber's group (the group of fighter-bombers) must be bound by fight with the protection group. This group ensures fulfilling the task of the assault group. If the air reconnaissance has discovered a strong fighter escort of the hostile group, it is to send forth the front group which has task to make the hostile fighters fight and separate them from the protected group.

d) Air fight of a fighter air regiment under worsened atmospheric conditions

Worsened atmospheric conditions decrease abilities of the fighter air regiment proportionally with the technical equipment of its planes.

Nowadays then is a general demand for all the airfield and planes to be equipped by such means which enable flying under worsened atmospheric conditions. Therefore all regiments can fulfill the combat tasks and lead air fight under worsened atmospheric conditions above clouds without equipment of planes with radio-location set boards.

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Under those conditions the fighter air regiment can fulfill protection of army by barraging above clouds, under clouds, or in both the ways almost unlimitingly, of course, without possibility to follow hostile planes when they enter clouds. In similar way it is possible to fulfill this task out of readiness on the airfield. While atmospheric conditions which give the enemy possibility to fulfill the tasks even in clouds, the fighter air regiment can use only those planes which are equipped by board radiolocation stations. In such a case it concerns only activity of individual planes out of readiness as well as out of barraging.

Controlling of the fighter equipped with board radiolocation set at a target is carried out from the command post of the fighter air regiment (division) till the moment, when the fighter will see the target on the screen of the radiolocation set. From that moment further controlling at the target is carried out by the pilot independently and the command post is in readiness for realizing the further controlling for case, when the fighter has lost the target.

e) Air fight of a fighter air regiment in the night

Similarly like while worsened conditions also air fight in the night is dependent on the technical equipment of the fighter. The fighter in regiment acts in the night usually with a part of its forces and only if it is partially equipped with board radiolocating means, or with all forces, if it is equipped only with such planes.

In the night fighter in regiment can protect army in the same ways of combat activity like in day, only the activity of the fighter air regiment against ground targets is lessened.

Fight with individual hostile planes flying independently or in long time intervals lead the individual fighters out of zones of barraging, out of forming up areas or out of readiness on the airfield. Start of a plane of the airfield must be carried out in time for the plane to fly in the determined zone of barraging of in the forming up area before arrival of the hostile planes. When the hostile plane approaches the zone of barraging, the command post of the air tactical division (regiment) performed

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controlling. Controlling of the hostile plane is carried out after the position of the fighter is more accurate.

Raid out of readiness on the airfield is usually performed direct after start of the fighter.

Fight with bombers in column formation demands concentrating the forces of the fighter airforce. A fighter air regiment can be determined in such a case for barraging in 2 zones of barraging. In each zone of barraging can be 6 - 8 fighters in different altitudes.

The fighter equipped with the board radiolocation sets, led in zones of barraging or in the space of forming up, fly in accurately determined heights and they are informed of approaching enemy (distance, altitude, length of the column and eventually speed of flight of the hostile planes) in a certain time intervals.

As soon as a column of hostile bombers approaches the zone of barraging or the forming up zone, the fighters independently or by order of controlling from the CP (command post) of the tactical air division (regiment) perform by means of the board radiolocation sets, assaults on the determined part of column of the bombers. This fight is lead up to the ordered line. Therefore they can cross over it only which direct following the hostile plane and only on order of the fighter air division (regiment) commander.

#### V. Organization of combat activity and command of a fighter air regiment

The fighter air regiment gets usually a combat task from the commander of the tactical air division. According to the extent and the character of this combat task there can be issued orders for of different duration.

While determination of combat tasks to a fighter air regiment it is necessary to take into consideration

- time necessary for pilots to prepare themselves for a flight,
- previous effort of combat activity of fighters to eliminate overworking of the airforce staff and ensure its fighting ability,
- number of useful airplanes, ensuring fuel and ammunition for them,
- if the airforce staff, its experiences and material corresponds to the combat task.

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Decision of the commander is the most important element of command. Reasoned decision can make the commander only if he clearly understands the task, determined by the commander of air tactical division, and knows the rules of combat use of the airforce and rules of combined-branch fight and operation.

When thinking over the task, the commander has to understand the intention of the air tactical division commander, the aim of own activity, tasks of night hours and conditions of cooperation with them, he has to determine role and location of the regiment in fight character and conditions of future combat activity. A special attention is to be given these questions:

- how much time he has for preparation to carry out the combat task in the determined time,
- in benefit of whom fulfil the fighters their task, in what extent and with whom it is necessary to organize cooperation,
- in what space, in what distance from own airfields and against what target will the fighters operate,
- what results it must be reached by the combat activity.

All these questions are solved a ground of the fight order by the commander of regiment who has received it of the commander of tactical air division. When the task is clear the regiment commander can issue some order for his staff for elaboration of basement for decision.

Having understand the task and issued instructions the regiment commander has to pass or evaluating the situation.

Evaluating the situation means careful and gradual analysis of all elements with the aim to determine how they help or trouble fulfilling the ordered task and measures are to be taken in order to minimize their unpleasant influence. The commander of the fighter air regiment evaluates the situation as follows:

a) The enemy:

formation and character of activity of army, the line of front, dislocation and character of the hostile enemy, from where and in what quantity it can appear in space of the fighters activity, what types of hostile planes can the fighters meet, expected defence of the enemy in air and a ground in space of the fighters combat activity, radiolocation ensurement of the hostile a50X1-HUM

On ground of this analysis the commander of regiment has to determine the most advantageous way of use of own fighters number and determination of individual groups and equipment of the planes.

b) The neighbors

the tasks which fulfils army in cooperation with fighters and the tasks of other branches of airforce, their influence on solution of the own combat task, turning of effort as to location and time.

On ground of that the regiment commander determines ways and procedure of cooperation of the fighters with army and airforce according to the period of activity.

c) Own possibilities

The combat state of fighter airforce, possible combat effort, moral state and degree of preparation of the airforce stuff for fulfilling the determined task, the main tactical technical advantages in comparison with hostile planes; material, airfield and special provision, the state of command means.

Analysis of own possibilities enables correctly divide own forces to groups and periods of activity and determine providings for ensuring fulfilling of combat task.

d) Ground conditions and weather

Possibilities of navigation, seeking the targets and masking flight, forecast of weather and its influence on surprise and choice of way of combat activity.

e) Time conditions: (mainly with aim to ensure putting the fighter in operation at the moment necessary) it is to determine the time which is necessary for flight of groups in the determined space, time of flight of the plane to the target, needy limits for taking on readiness for start and readiness for repeated start.

On ground of the analysis of situation of every element of situation is made partial conclusion which after mutual comparison serves as a foundation for decision of the commander.

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Total conc [redacted] ing the task and evaluation of the situation form the decision of the commander. Decision of the commander of fighter air regiment determines at first his intention for fighter's activity (what is to be reached and way to fulfilling the task (how to realize intention), division of forces and means, partial task for executors, providings necessary for organization of cooperation with army and means of air defence, and providing for combat and special provision.

The main factors for decision of the commander are usually besides the intention:

- a) way of fighter's activity which is to be determined according to the determined task (with consideration of opposition possible in air as well as on the ground), the character of targets, conditions of weather and ground, number of own forces and their combat possibilities;
- b) Number of units of planes separated for fulfilling the task;
- c) Armament of fighters according to character of air and ground targets, their dimensions and vulnerability;
- d) Choice of fighter's group so the level of their preparation will correspond to difficulties of the determined task;
- e) Way of mutual cooperation of fighters, of cooperation with army and air defence means, way of cooperation is determined by instructions which are issued by the superior commander (of tactical air division);
- f) Procedure of using the means of fighter's controlling on the enemy; this way is determined by the number of means and in according with instructions of superior commanders.

Planning of the combat activity means dividing of forces and means with the aim to ensure timely fulfilling the determined task with the maximum result.

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While planning the combat activity of the fighter airforce it is usually carry out:

- division of all the task to a few partial tasks according to the places and time;
- division of forces and means by the partial tasks of the fighters;
- determination of necessary combat effort of starts of planes;
- elaborating of providings for reconnaissance of airfields, material, plane-control, and meteorological provision and communication provision.

The main planning document at a fighter air regiment is the "Graph of plan of combat flights"

It contains:

- numbers of fighter which have been separated for fulfilling the task of regiment; names of unit commanders, names of their representatives and their call signs;
- structure of every unit, time of start and arrival into space of the combat activity (or the time of readiness for start);
- determined task, forms of cooperation with army and anti-aircraft artillery (the signals of mutual distinguishing and information of discovery of air enemy, space and altitude of assembly of mixed group and so on);

While planning the combat activity it is to plan with consideration of reserve necessary for increasing force in air fight.

#### Issue of fight tasks:

In order to have more time for preparation for carrying out the combat task is issued the preliminary order in which is mentioned:

- general character of the determined combat task (without disturbing the rule of secretness
- necessary number of planes (units), or permitted number of flights
- time and degree of combat readiness or the time of the beginning of combat activity
- armament
- when and how will be issued the fight order.

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The fight order is the main way how to deliver the commander's decision to executors. It contains:

- shortened characteristics of ground and air situation in the space of the next combat activity;
- the combat task of the regiment : the space, time and object of activity, the main form of activity which fulfilling the task, the aim of activity and what result is to be reached;
- the neighbours tasks (of airforce and army which can have influence on fulfilling the combat task of the fighter regiment;
- the tasks for squadrons : the space, object of activity, way of performing the task, the time of activity or readiness for start, what results are to be reached;
- the route and profile of the flight towards the target and back;
- way of activity of fighters while fulfilling the task, way of fight with the air enemy;
- way of cooperation of fighters with the anti-aircraft artillery and with army;
- way of return and landing, readiness for further flight ;
- way of usage of radiotechnical means for controlling and navigation;
- the place of the commander and his representatives in the total combat formation;
- way and time of reports.

#### Organization of cooperation of the fighter airforce with army

Cooperation of the fighter airforce with army is organized usually by the commander of the air tactical division according to instructions of superior commander of airforce and in accordance with instructions of the combined branch commander.

Organization of cooperation of the fighter airforce with army is ensured:

- by timely determination of tasks for fighters with respect to their combat possibilities;

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- by correct understanding to tasks which fulfils the army;
- by organization of unceasing communication among airforce and army commanders and their staffs;
- by tuned activity in fight and by accurate determination of the tasks as to their place, time and objects by the fighter airforce and army;
- by as near as possible location of the command posts of both the weapon;
- by careful organization of command to fighters above the battlefield;
- by use of simple and comprehensive signals of cooperation;
- by continuous mutual information of any changes in situation and intended activity;
- by dislocation of the fighter airforce near the space of their next activity.

Organization of cooperation of fighters with the means of air defence : it is organized usually by superior airforce commander in accordance with the rules mentioned in the basic lecture (the rules of use of the fighter airforce).

VI. Commanding the fighter air regiment from the ground in air and in course of combat activity

Commanding the fighter air regiment comprises:

- command on the ground
- command from the ground
- command in air.

Commanding on the ground contains issuing the fight tasks, preparation of the fighter an regiment for combat activity, organization of cooperation, evaluation of results of combat activity and responsibility for their publishing, exchange of experiences, call for fighter airregiments from airfields, fulfilling the formerly issued tasks and warning of air enemy.

Commanding on the ground is realized up to the fighter air regiment by personal connection of the commander with his subordinate and of the fighter air regiment higher by personal connection wire and radio means.

Commanding the fighters from the ground

comprises preising of the combat tasks, preliminary and direct control, leading the fighters on another target, checking in course of combat activity in air, informations of air, ground and meteorological situation. The main means of commanding the fighters in air from the ground is the radio (UKV).

Commanding in air comprises commanding the planes (groups) and it is usually realized:

- by personal example of the commander and by eye signals by means of evolution by the plane - it is used for commanding the planes in individual groups (assault group and protection group, the front group);
- by radio, i.e. by mutual radio communication among the planes (groups) in air.

Radio-communication is the main means of command to groups in the combat formation. This connection can be used even by individual pilots in the case of:

- of danger of attacking neighbour crews by the enemy
- warning the commander before the hostile planes
- report of important ground targets
- loss of orientation and emergency landing.

A fighter air regiment is commanded from the ground by the commander from his command post either personally or by means of his staff.

For controlling on the hostile planes the fighter air regiment uses the radiolocator attacked by the tactical air division and the command is realized from the CP. The CP of the fighter air regiment commander is a place equipped with such special means and communication means which allow the commander to command on the ground as well as from the ground.

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The CP of the commander of a fighter air <sup>regiment</sup> ~~division~~ is dislocated in the <sup>middle</sup> ~~space~~ of airfield in the place which ensures good observation of starts and landing of the fighters, reliable commanding to squadrons on the ground as well as from the ground, control of air and ground defence and covered dislocation of persons on the CP.

Place for dislocation of the CP is determined usually by the regiment commander in distance 1500 - 3000 m from the centre of the airfield with respect to protection properties of the ground before effects of an atomic explosion.

### Conclusion :

A fighter air regiment fulfils tasks of protection of army at first by annihilation of hostile planes and pilotless means of air attack in air fights.

Possibilities of the fighter airforce while protection of army depends direct on the properties of used means. Tactical technical data and armament are with respect to existing targets still sufficient.

<sup>zone</sup> ~~space~~ A fighter air regiment fulfils the task of protection in the determined by the commander of tactical air division. Combat activity in the determined space is fulfilled usually cooperation with the other regiments of division; it can fulfil some combat task independently but only exceptionally.

A fighter air regiment fulfils the combat task of protection of army :

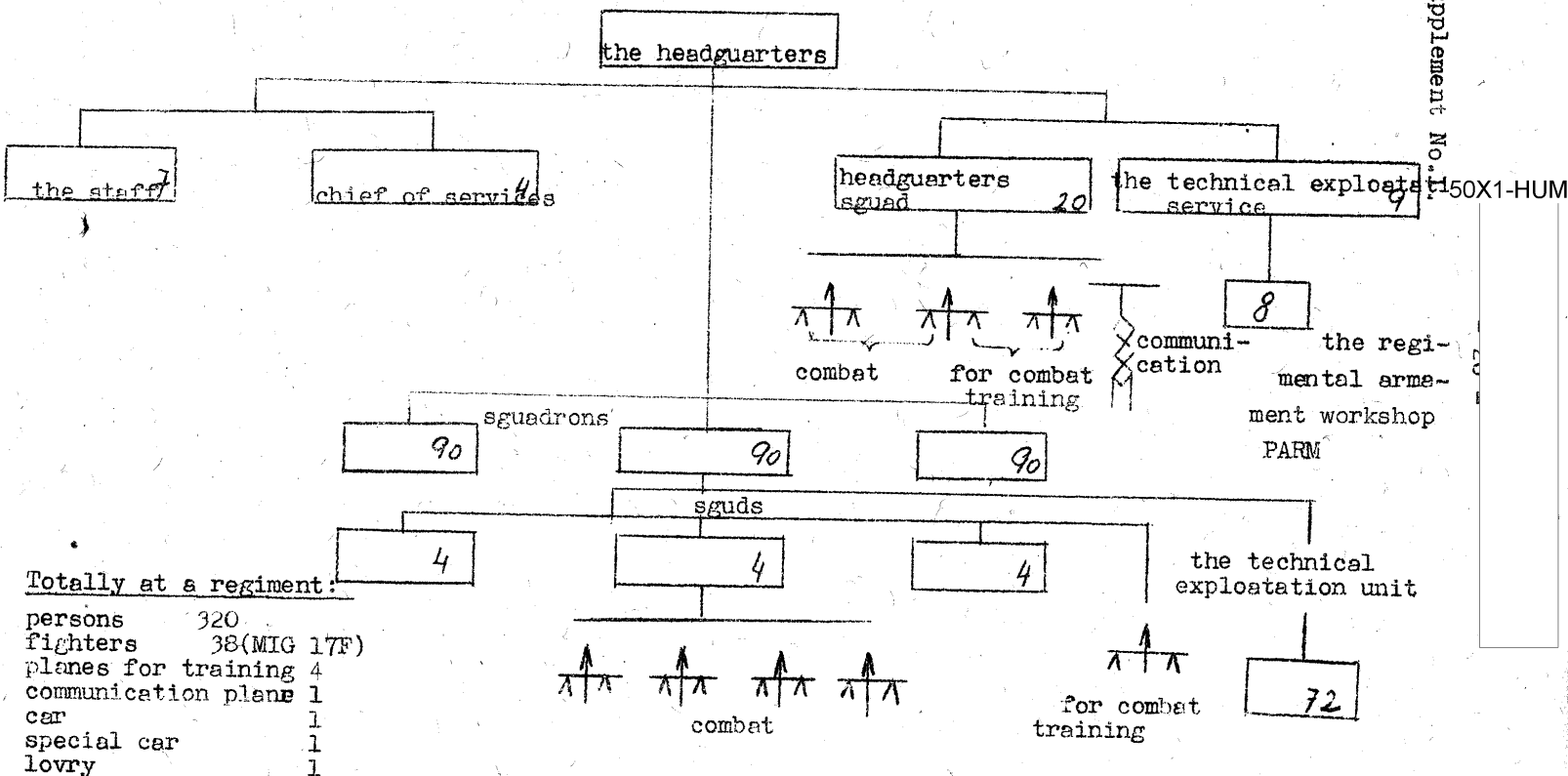
- by raid out of readiness on airfield
- by raid out of barraging or
- by combination of both the ways of combat activity in daytime as well as in the night.

An effective cooperation of tactical air division with army is supposition for a successful protection of army before hostile airforce and pilotless means of air attack, especially cooperation with ground means of air defence is very important.

The commander of a fighter air regiment commands usually from his CP; while combat activity of whole the regiment at most of planes he commands from the plane. In such a case command and control is carried out by the commander of an air tactical division.

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Schema of organization of a fighter air regiments :



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Combat activity of a tactical air division  
while support and protection of army

The contents:

Introduction. The task of a tactical air division while support and protection of army. Organization, combat abilities and dislocation of an air tactical division.

The tasks of an air tactical division determined for protection and support of army. Forms of combat activity used in an air tactical division while fulfilling main combat tasks.

Combat activity of an air tactical division while attack and defence.

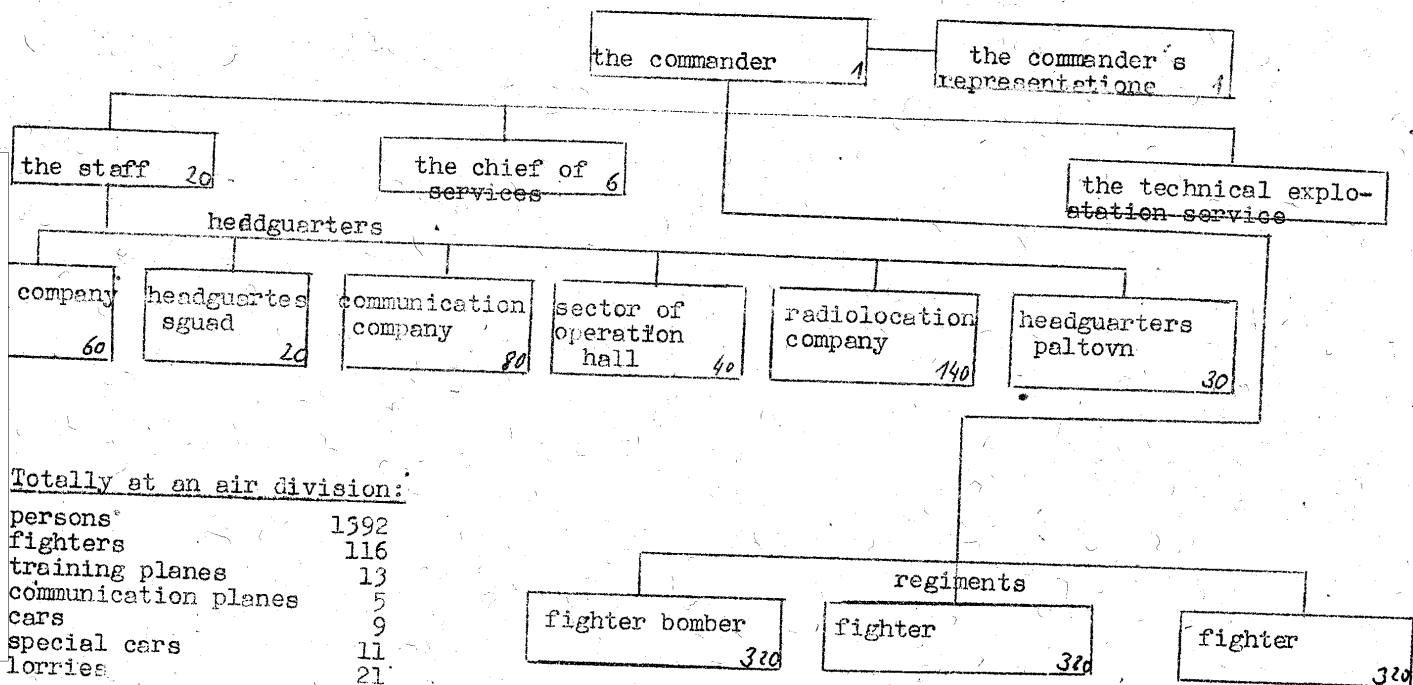
Rules of cooperation of an air tactical division with army and means of air defence army (corps).

Rules of an air tactical division provision of combat activity of an air tactical division.

Conclusion.

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Schema of organization of an air tactical division.



Supplement No.1.

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Introduction:

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Fight of army in up-to-date conditions can be development only, if them will be ensured an effective airforce support and protection against attacks of the hostile airforce and pilotless means of air attack.

For fulfilling these tasks is at first determined the tactical airforce.

While ensuring fight of army the tactical airforce fulfils these main tasks:

- it protects army and important rear objects before blows from air with stress on provision of large units and units which lead fight with forces of hostile army;
- it protects dislocation of own airforce and ensures its combat activity before assaults of the hostile fighters;
- it annihilates operational and tactical reserves as the second lines, and delays their advance to battlefield;
- it annihilates rear devices and delivery of material for fighting troops;
- it destroys and annihilates the hostile defensive posts, artillery, launching bases of pilotless means of air attack and other means and devices which make fight and advance of hostile army more difficult;
- it carries out air reconnaissance.

One of the most important mentioned tasks, on which fully depends success of any operation and fight of army is safe protection of army before blows of hostile airforce and pilotless means of air attack.

This task can be achieved after preliminary reaching of predominance in air in the space of operation and fight of army as well as by an effective air defence of troops and rear objects. The air defence itself is not able to prevent blows of the hostile airforce and pilotless means of air attack, if there is not ensured predominance in air, i.e. liberty of dealing for own troops and supporting airforce.

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Aim of this lecture is at first to get acquainted the students with determination, tasks and ways of combat activity of an air tactical division determined for protection and support of fight of army. Furthermore it has to acquaint with the rules of use of an air tactical division while fulfilling tasks following from combat activity of army, with the rules of cooperation with army, command and control of combat activity of an air tactical division in course of combat activity of army.

I. Determination and tasks of an air tactical division in  
up- to- date fight.

An air tactical division is the basic tactical large unit of the tactical airforce. It is determined for:

- protection of army and rear objects before blows of hostile airforce and pilotless means of air attack;
- supporting fight of army, at first for fulfilling tasks in operational depth.

It can be determined according to the situation for protection and support of army, infantry corps, armoured division or eventually infantry division. Task of airforce support at lower tactical large units is fulfilled independently, at operational large units in cooperation with neighbour tactical air divisions.

The tasks of protection is usually fulfilled together with the fighter airforce of neighbour tactical air divisions. In up-to-date fight conditions an air division can fulfil these tasks:

- of protection:

- to annihilate planes and pilotless means of air attack of the enemy in air,
- to protect combat activity of army on the battlefield, in spaces of its assemblies and while advance,
- to protect dislocation of airforce and other rear objects before air reconnaissance and blows of hostile airforce and pilotless means of air attack,
- to ensure combat activity of bombers and other branches of airforce,
- to annihilate hostile air-borne troops while flight as well as in the space of landing of own air-borne troops,

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- to block air ~~enclused~~ hostile troops,
  - to cooperate with other tactical air divisions while repulsing raid of the hostile strategical airforce and pilotless means on accessible ways to objects of the operational logistics,
  - to lead air reconnaissance in benefit of tactical air division, other branches of airforce and army.
- of support:
- to annihilate hostile army, its tanks, armoured fighting vehicles, and other means of transport,
  - to annihilate and neutralize hostile artillery,
  - to destroy hostile command posts and means of command and communication,
  - to annihilate hostile air-borne troops,
  - to protect the bombers which fulfilling their tasks e.t.c..
- From these basic tasks, it is possible to device individual partial tasks in various phases of fight by applying these task for concrete situations of fight of army.

## II. Organization of an air tactical division, its combat abilities and dislocation

An air tactical division is usually subordinate the air force or the main command of the airforce. It is able to fulfil tasks as to their extent.

An air tactical division is commanded by the commander of the air tactical division; this commander is the direct chief of all the members of division and he is responsible for its combat readiness, for preparation and organization of combat activity, for firm and unceasant command and for successful fulfilling of determined tasks. He has his representative.

An air tactical division consists of the staff, chiefs of services, and of technical- exploitation service.

The staff of an air tactical division which comprises 20 persons, is determined for ensuring hard and unceasant command for air regiments and other subordinate units to the commaden of the division.

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Under the command of the division commander the staff of an air tactical division organizes and carries out providings for preparation, organization and leading of combat activity. The staff of an air tactical division consists of good and universally prepared officers. In its head is the chief of staff. The officers of the staff of an air tactical division under the command of their chief ensure timely preparation, organization and carrying out of providings which form the essence of command, in accordance with forming up situation.

To the staff of an air tactical division can belong these departments: operational, reconnaissance, communication and organization, eventually planning department; services: navigation, firing, parachut, meteorological, medical and other services .....

In head of departments and services of the staff are the chiefs of departments and services.

To the staff of an air tactical division is direct subordinate the company of provision means, communication company and company of radiolocating means, operational hall and headquarters platoon. An air tactical division has 3 regiments; two of them are fighter regiments and the last one is a fighter-bomber regiment. The fighter regiment are equipped with the planes Mig 17 F and the fighter-bomber regiment has at disposal the planes Mig 15 bis. Besides that an air tactical division comprises the headquarters squad which has two combat, one training and two communication planes.

Combat abilities of an air tactical division determined for proetction and support of army depends on many factors, the most important of them are:

- moral state and level of readiness of pilots,
- timely getting information of hostile raid and ground situation,
- way of combat activity, degree of readiness of combat fighter and fighter-bomber units and regiments of the air tactical division,
- ability of using the means of command and controlling of an air tactical division and its regiments on air and ground targets,
- tactical-technical and fighting properties of used planes,
- kind and efficiency of weapons used in planes and other factors.....

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Besides these generally valid factors which influence combat possibilities of the fighter and fighter-bomber units and regiments of an air tactical division, it is possible on the ground of detailed analysis of hostile airforce and army determine that:

- fighter air regiments of an air tactical division are able to perform 4 - 5 flights a day, fighter-bomber regiment 3 - 4 flights a day,
- fighter regiments are able to keep during whole the day unceasingly :
  - in readiness No.1 12 - 16 regiments,
  - in readiness No.2; 12 - 16 planes and to interven against 10 - 12 hostile groups in force 16 fighters or 32 fighter-bombers, or 8 - 12 bombers,
  - in decisive periods of combat activity of army the air tactical division can be have in readiness No.1; 36 - 72 planes for 2 - 4 hours,
  - air tactical division is able to concentrate 2/3 of forces (i.e. up to 48 planes) above the battlefield in height 5000 m for 12 - 16 min. while supposition that 2/3 of forces of hostile planes are in readiness No.1 and No.2
  - air tactical division can continuously barrage with groups each of 12 planes while 30' changing in the space of barraging of seize 40 x 40 km during 12 hours which supposition of 3 regimental flights for enemy fighter air regiment,
  - air tactical division is able to realize in fight attack operation:
    - in preparation period of attack operation 16 - 24 fighting regimental starts,
    - within attack operation of army (duration 5 days) about 20 - 24 regimental starts, i.e. totally 36 - 48 regimental fighting flights in 15 days and losses during that time can reach as to material : 12 - 15 planes destroyed, 35 - 40 planes for repair

as to persons : 4 pilots killed

8 - 10 pilots hard wounded an air tactical division can at the same control on 8 - 10 air targets (number of targets or which the division can control depends on material provision of

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command posts (sector operational hall) and training of crews of radiolocators.

Combat abilities of bomber regiment have been stated in the introductory lecture and therefore they will not be repeated.

Combat abilities of fighters and fighter-bombers can be increased or decreased if at all the planes of division will be used fighters or fighter-bombers for fulfilling the tanks.

Dislocation of an air tactical division:

Air regiments of an air tactical division are to be dislocated in airfield centre on operational airfields from which is led combat activity of air tactical division. Besides that these airfields the airfield centre comprises reserve and deceive airfields.

While dislocating fighter air regiments on the operational airfield in activity, it is to keep the rule of location of one regiment on one airfield. On the airfield it is then to prepare careful masking of the airfield, traffic on it and keeping all providings for secret and reliable protection and defence, especially against means of mass destruction.

The airfields of air centre are to be 20 - 30 km far each from the other. These distances increase safety of planes while flight up on a few airfields at the same time and while landing, especially while worsened meteorological conditions. Distance of the airfields from the line of front has to exceed 50 km. While an attack operation it is necessary to suppose airfield manoeuvre. An airfield manoeuvre on advance airfields or is to be performed with regiment by regiment.

The command post of an air tactical division is to be made according to the situation near some of airfield of the division.

### III. Forms of combat activity of an air tactical division

As the ways of combat activity of the fighter and bomber airforce have been already mentioned in the introductory lectures and in lectures for regimental practice and not going to analyse them to full details.

Protection of army before blows of the hostile airforce will be carried out by air tactical division in the basic ways of combat activity of the fighter airforce, namely

- out of readiness on airfield
- out of barraging and eventually
- by blocking airfields of the hostile airforce.

Under the up-to-date combat conditions for protection of army there will be used the two first ways of combat activity in most cases. The third way of "blocking airfields" is in up-to-date combat conditions less effective and less economical way of combat activity of the fighter airforce and it will be used in the cases of unexpected discovery of a hostile airfield.

The way which uses the commander of air tactical division will be depends on situation, i.e. on kind of fight, on the character of activity and dislocation of the hostile airforce, on its tactics and on efficiency and abilities of means of air reconnaissance. In cases when the own troops are assembling on the front or in cases of unsufficient information about raid situation or large distance of own airfields the commander of air tactical division uses combat activity in way of raid on air targets out of barraging. In opposite cases he will choose economical way of using the fighter airforce, i.e. radi on air targets out of readiness on airfield. The commander of tactical air division will have very often to use

both the ways of combat activity at the same time in order to protect army. May be use any of these ways of combat activity he must always keep a certain forces in reserve on the airfield in order to influence the air situation. By putting this reserve in operation at the decisive moment, he can influence the course of air combat or situation on the ground.

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While determining forces necessary for protection of own army by barraging the commander of the air tactical division has to consider:

- supposed combat activity of the enemy and his tactics,
- time of stay of one group in zone of barraging,
- number of planes in one group,
- degree of combat activity of own fighter airforce.

Number of zones, structure of a group of fighters performing barraging, number and altitude of individual groups in zone of barraging depends on character of task; air and ground situations are determined by the commander of air tactical division. The zones of barraging are usually chosen besides space of dislocation of army, they are to be advance an directions of probable flights of the hostile airforce and pilotless means of air attack.

Barraging is performed usually in open combat formations deployed in height. Altitude of groups of fighters performing barraging depends on the supposed height of flight of enemy and it can be chosen from small up to large heights.

While demand of performing protection of army by barraging for a longer time, change of groups in zone of barraging is to be performed in covered way and so that after finishing of barraging the fighters might have fuel for 10 - 15 min. of flight, besides fuel for an air combat (10 minutes) and reserve necessary for flight to own airfield and landing.

One group of 10 - 12 fighters is able under suitable meteorological conditions, reliably check space of 40 x 40 km.

Examples of possible ways of protection 1 are demonstrated of army in the scheme.

While protection of army out of readiness the commander of air tactical division determines the number of planes for readiness No. 1 and 2. Number of planes in readiness will depend on the supposed hostile activity, time of protection and number of fighters which are at disposal. Change of planes in readiness (usually after 1 - 2 hours) is performed after the order of the commander of regiment.

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Intervention out of readiness on airfield is demonstrated in the scheme.

On the contrary fighter-bombers fulfil combat tasks either:

- at the planned time, or
- on call.

Under the up-to-date conditions we can suppose more often fulfilling combat tasks on call. The fighter-bombers can fulfil on call these combat tasks:

When preparation of assault, while mass raid of enemy's airforce on the ground, while annihilation of hostile counter-assaults and air-borne troops and counter-blows etc. The fighter-bombers fulfill the tasks on call in most cases out of readiness No.1 and 2.

While fulfilling combat tasks the fighter-bombers use some of the following ways of combat activity according to the situation.

Concentrated blows, activity in lines, blocking, flights with task of independent searching targets and destroying them.

Concentrated blow is usually carried out by whole the fighter-bomber regiment at once on one target, or on a few targets in the same area with aim to achieve high density of fire for reliable annihilation of target and for strong moral effect on enemy.

Tasks on call are fulfilled usually by activity of squadrons, squads or pairs in lines.

The way of combat activity which is to be used is dependent on concrete air situation and ground situation and conditions of combat activity. For ensuring combat activity of fighter-bombers, the commander of air tactical division uses the fighters when the situation requires it. Ensuring of combat activity of fighter-bombers can be carried out according to the situation either:

- by escort along the route of flight
- by protection of fighter-bombers in the space of combat activity
- by blocking airfields of the hostile fighter airforce (it is very seldom),

The mentioned ways of ensuring combat activity of the fighter-bombers can be used independently, in various combinations or at the same time.

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#### IV. Combat activity of an air tactical division during attack

An air tactical division fulfills while attack the task of protection and support of fight of army.

- In the period of preparation of attack it is necessary to form the troops according to the determined task and intention of the commander of army. The army determined for carrying out of a task will be delivered from larger depth under the up-to-date conditions. In that time the airforce and the main command must lead combat activity with the aim to make advantageous conditions on the ground and in air for an attack.

At first it will be fight with the hostile airforce and pilotless means of air attack, the aim of which is to make the army and own airforce get rid of danger of possible blows from air.

Under this situation the air tactical division can fulfil these task according to the situation within the determined space of combat activity:

- protection of army in touch
- protection of army while its movement, in the area of assemblies and when taking on combat formation.

Protection of army in touch will be carried out in one of already mentioned ways of combat activity.

Protection of army while movement and in the area of assembly can be carried out at the beginning by fighter air divisions or air division of the main command.

In demands of the army's commander usually included in the plan of air defence of army, it will be mentioned:

- marching routes of movement of own troops, sections of marching routes and the time when it is necessary to strengthen protection of army;
- areas of protection (zones of barraging) and way of their successive changes in accordance with the speed and marching routes of troops;
- the areas protected by the anti-aircraft artillery and way of cooperation of fighters with the antiaircraft artillery;

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- dislocation of the command posts of moving armies and time of their movement;
- way of keeping connection with army, signals of mutual distinguishing and determination of targets.

As under the up-to-date fighting conditions movements of armies will be carried out during the night the main effort of defence is to be transferred on this time.

In this period, if the situation permits it, the commander of an air tactical division can use for protection of army even the fighter-bomber regiment at the beginning of this period.

Towards the end of this period, however, it can be supposed that the fighter-bombers can be used:

- for annihilation of hostile planes on airfields;
- for annihilation of tanks, artillery, bases of pilotless means, of air attack, radiolocation sets as well as of other hostile fighting technique;
- for destroying bridges;
- for annihilation and neutralizing of hostile troops;
- destroying command posts, communication, centres e.t.c.;
- destroying means of transport, stores, e.t.c.

The commander of an air tactical division will usually fulfil the tasks of protection and support according to the orders of the main headquarters.

- While attack:

Even when in the period of preparation of combat operation have been formed suitable conditions for employing the army in any case it cannot be reached such a weakening of the hostile airforce which can ensure the army before blows of the hostile airforce.

The enemy will try to stop advance of the army. Therefore in the time when army takes the position for attack it is to strengthen its protection before blows of the hostile airforce. Possibility of surprising blows desires protection of army by barraging.

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The protection must be ensured not only in daytime, but also in the night. A special case must be paid to fight with hostile reconnaissance planes, for these can gain valuable information for use of airforce and pilotless means of air attack.

Protection of army which has taken position for an assault or which is moving to the line of deployment, before blows of hostile airforce while possible hostile conter-preparation must be carried out by all the means of the fighter airforce by readiness as strict as possible and by barraging.

The groups determined for barraging carry out barraging in the zones of barraging adhered to the front above the hostile territory in order to prepare more advantageous conditions for raid on the hostile planes and pilotless means. For strengthening groups performing "barraging" and for activity against the enemy in other direction are determined for readiness on the airfields strong groups of fighters which take off on order of the air tactical division. A special attention while protection of army is to be paid to those hostile planes which try to penetrate in low and very low altitudes.

After opening the attack, the fighter airforce continues in protection of army in direction of the main blow in cooperation with other means of air defence, usually by "barraging" and out of readiness on the airfield.

Protection of movements and employing second lines of infantry corps of army is carried out under active air defence of the first lines of army, or by a special groups of fighter airforce. While deployment of attack the air defence of army is carried out in current ways of protection by the fighter airforce. In this period of fight, when the airfields of the fighter airforce are relatively far behind, performing quick airfield manouevre at hostile desolated or new built airfields has a great importance.

While chasing the enemy the fighter airforce must protect the following troops against blows of the hostile airforce and while enclosing it has to block together with the antiaircraft artillery the enclosed hostile formations and not permit the enemy evacuation or supplying himself.

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An air tactical division according to the orders of superior airforce commander can take part in airforce preparation by its fighter-bomber regiment. In this case which is not often, it can fulfil one of these tasks:

- together with the artillery to destroy, neutralize and annihilate the most important objects
- to neutralize and destroy the command posts, radiolocation sets and communication centres of the enemy
- to neutralize and annihilate nearer hostile reserves.

Such a blow is usually of duration of 10 - 15 min and it must be carried out from such an altitude for the planes not to be hit by own artillery.

In the case when the air tactical division is determined for support of army's fight (infantry corps, division), other regiments of other divisions have to take part in airforce preparation.

While own attack the air division can in benefit of army's fight (infantry corps, division) fulfil these tasks:

- gradually neutralize focii of opposition which prevent army's troops in advance; to destroy artillery, bases of pilotless means,
- to annihilate the enemy who carries out counter-assault and his approaching reserves,
- to ensure employing the second line of an infantry corps and its support in depth.

tasks will be fulfilled as it has been already mentioned, by quick interventions mainly out of readiness on the airfields on call. In every case blows of the fighter-bombers must be tuned with the combat activity of army and they will be led mainly into tactical depth of hostile defence.

At that time the commander of an air tactical division can fulfil even tasks of air reconnaissance if the army's commander desires it.

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Fulfilling tasks by the fighter - bombers in benefit of army requires narrow cooperation between army and the commander of the air tactical division.

V. Activity of the commander and the staff of an air tactical division while preparation and organization of combat activity.

The commander and the staff of an air tactical division solves after receiving the fight order from superior airforce commander there tasks:

- thinking over the combat task.
- evaluation of ground and the air situations,
- making up decision,
- organization of cooperation with army,
- issuing the combat orders for commander of air regiments,
- the control of staff activity,
- checking of preparation and readiness of air regiments for fulfilling the combat task.

The fight order can receive the commander of air tactical division either on the command post of superior airforce commander or in a written form. Usually is chose the first way of insuring a fight order for it allows that the division commander will receive further information of situation of own army and airforce as well as of hostile activity. After the division commander returns he has to organize combat activity of the air tactical division.

In the fight order the commander receives the task of protection and support of combined branch large unit. In the task it is mentioned : which combined branch large unit, in what time and by what an effort from which airfields is to be protected and supported where and when it is precise tasks of cooperation.

After carried out preparation the division commander learns for the combined - branch command post and there he precises the situation, acquaints himself with the task combined - branch large unit with decision of its commander and precises with him the task of division according to the place and time, and questions of cooperation ( protection and support ).

Then he usually makes a decision and his decision is to be given to the combined - branch commander.

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After return [redacted] [redacted] issues his decision and combat tasks to commanders of air regiments and inspects their readiness for combat activity.

Activities of staff of the air tactical division rests in preparation of foundations necessary for the commander of air tactical division which he needs for universal evaluation of situation, organization of cooperation, making up decision and issuing tasks to commanders of air regiments.

Besides that the staff must ensure:

- elaboration of decision,
- elaboration of organized activity,
- organization of command post and communication,
- issuing order for protection and defence of airfield centre,
- checking fulfilling combat orders,
- help for air regiment while organization combat activity and
- organizing and carrying out of inspection of state of all kinds of provision of next combat activity.

Organizing of combat activity by the staff consists of the plan of provision which has to ensure planned, aimful and successive work of the commander and the staff of the air tactical division. It is to be carried out by number of the operational department.

The plan usually foresees fulfilling of these provisions:

- thinking over the fight order of the superior airforce commander,
- orders of the commander and the chief of the staff for preparation of foundations for decision,
- organizing and performing dislocation of the command post and performing the air reconnaissance,
- assembly of foundations and their issuing to the commander,
- organization of cooperation with troops,
- issuing tasks to the commanders of air regiments,
- elaboration of decision of the commander by the staff,
- organization of command,
- organization of provision of all kinds,
- checking and help for air regiments in preparation of fulfilling combat tasks,
- report of the staff of superior air commander in readiness for flight in order to fulfil the combat tasks.

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For preparation of combat activity the air regiments can be given a preliminary order which comprises:

- provision for preparation of the next combat activity,
- number and time of combat readiness of air regiments,
- determined quantity of combat change and refilling planes,
- time and ways of getting a fight order.

The fight order itself which is to be elaborated after the decision of the commander comprises:

- general characteristics of the ground enemy, the line of front characteristics of the enemy, characteristics of air defence, and forecast,
- the task of division and decision of the commander (when, by what forces, how, against what object, with what aim is to be performed activity and what is to be reached as the result of this combat activity. The tasks, time, space and way of activity of the neighbour large unit the combat activity of which direct influence combat activity of the division,
- concrete tasks of enemy regiment,
- time of readiness for the first flight,
- armament,
- time and number of readiness for the further flight,
- way of cooperation with army,
- organization of command from the ground and in air,
- time and way of report delivery.

After elaboration of fight order it is to elaborate the plan-graphicon air division combat activity. It is a document of the staff and it is made in the case when the air tactical division has to plan a row of combat flight, and it is planned in details for the first day of operation.

The plan-graphicon enables the most effective division of forces and means according to tasks, to organize re-newing consumed fight and material means, to ensure precise cooperation within the division with air neighbours and supported army.

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Issuing combat tasks to air regiments is usually carried out orally on the command post of the air tactical division and there are to be present representatives of the division commander, the chief of the operational department, the chief of reconnaissance, the senior navigator, communication chief, officer for fire and the regiment commanders. After acquaintance with the situation on the front there can be carried out of combat activity while which the division commander inspects and presides all questions of cooperation of division with army.

# VII. Organization of cooperation with army, antiaircraft artillery, and other branches of airforce

The up-to-date fight is usually a combined branch fight in which collaborate in mutual cooperation all the kinds of troops and airforce.

The essence of cooperation rests in tuning the combat activity as to the target, time and space of all the kinds of weapons aimed in order to achieve the final result of the fight. An air tactical division can organize cooperation:

- with army and means of active-air defence,
- with neighbour air tactical divisions or other air divisions.

## Organization of cooperation of an air tactical division with army

If an air tactical division protects independently the army, then the questions of cooperation are precized usually by the commander of an air tactical division with the army commander (infantry corps, infantry or armoured division). If the air tactical division protects the army in cooperation with other divisions, then cooperation will be organized by care of superior air commander.

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In the case when the commander of the tactical air division is determined to organize cooperation with army and means of air defence, then after receiving combat order from the superior air commander he is due:

- 1 - to make a personnel connection with the army commander and to get from him the spaces of dislocation of the main formation of army, objects and the time of protection.
- 2 - to think over the combat task of army and the character of combat activity of neighbour air large units in the space of the next combat activity.
- 3 - air situation and weather.
- 4 - to think over dislocation and character of targets in the space of the next combat activity.
- 5 - to study ways of ways of cooperation with air defence of army.
- 6 - to study marked lines of front, way of mutual distinguishing and communication of airforce with army, cooperational signals, data of communication and way of using code maps.

The commander of the airtactical division gives in the determined time information report to the army commander. He has to make clear:

- combat tasks of army, air situation and possible counter-provision of airforce and anti-aircraft artillery of the enemy.
- the tasks of protection and support of air tactical division.
- combat structure, state and airfield of the air tactical division.
- combat effort in the first and the other days of fight, combat possibility of air tactical air division.
- the time necessary for intervention of own fighters against air targets and fighter-bombers against ground targets as well as the time during which can the planes of air tactical division stay above the front.
- state of weather and expected changes and its influence of the combat activity of the air tactical division.

In conclusion of his informative report the commander of the air tactical division encloses suggestion for use of division. He has to mention the intended organization of command for the division and the way of cooperation with army.

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At last he can add his demands for the army commander, what providing it is to take for mutual tuning of cooperation.

During the cooperation which is organized after the decision of the army commander the commander of the air tactical division must precise:

- the way of cooperation of fighter airforce with the means of air defence of army,
- the signals of mutual distinguishing and determining targets among the means of air defence of army and eventual signals of warning army before blows of the hostile airforce,
- the place of the command post of the army commander, to precise the place from which he will command and control the combat activity of the air tactical division, to determine the command controlling post and to determine demands for making auxiliary controlling posts at wireless troops eventually anti-aircraft artillery.

For fulfilling the tasks of airforce support he has further to precise:

- the signals of distinguishing of kinds of troops, pointing out dislocation of troops,
- the means and way of determining targets to units of fighter-bomber airforce from the ground,
- the quantity of artillery barrels for neutralizing the anti-aircraft artillery,
- the way of cooperation with artillery, the spaces forbidden for the fighter-bombers,
- the sections of flying across the line of front,
- the way of call for airforce support,
- the airforce organs, when will be in course of fight the officers for controlling.

Cooperation of the commander of air tactical division with the commander of army is elaborated in the table of plan of cooperation, which can consists of two parts. In the first part will be caught data following from protection of army and in the second are data resulting from the mutual cooperation of army and airforce while fulfilling tasks of protection.

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VII. Organization of command and control of combat activity  
of an air tactical division

Organization of command of an air tactical division can be carried out in two ways. The first way is that the commander of a fighter air division commands from the observation post made near the observatory or the command post of the army commander.

In the second way the commander of an air tactical division commands from the command post which is in the space of the air-field centre.

In the first case the commander of an air tactical division can be on the observation post (CP) during all the time cooperation with army or at least in the decision period of fight with the most necessary staff officers.

In the second case the commander of division will be on his command post, from where he will control activity of own units and at the army commander will be as an air liaison officer a member of the staff of division.

For control of combat activity the commander of an air tactical division has to use out sectional operational hall. The sectional operational hall serves at first for control of the fighter airforce at air targets and for call for the bombers to fulfil their combat tasks.

For controlling fighter-bombers at a target can be used according to the situation the controlling officers. Their posts are determined with respect to the tasks of fighter-bombers, situation, terrain, and they are usually 2 - 4 km from the front line and 10 - 20 km far each from the other - usually in zone of one large unit there is one post.

The controlling officers for fighter-bombers are equipped with wireless sets of range 50 - 100 km and by other means of communication. They control the fighter-bombers at the targets which they see from the ground observatories or by means of radio-technical means, if the target is not visible by sight from the ground observation post. Their further task is to observe the hostile planes and warn the plane's crews in air, to report the commander (sectional operational hall) air and ground situation as well as results of combat activity of own planes and of enemy, to control in his section marking of the border of the front line by

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Call for fighter-bombers and their control on airfield

Call for fighter-bombers for fulfilling combat task on the battle field is realized either by the commander of an air tactical division or by the sectional operating hall. The call is realized usually according to the demands of the army's commander, eventually by the own decision of the commander of an air tactical division with respect to the plan of cooperation and arisen situation.

The call must contain:

- position of own army,
- structure and equipment of the group of called planes,
- the task, target, place and time of assault of group.

In order to ensure that the fighter-bombers appear in time above the target, it is necessary to announce them the task so for them to have time enough for preparation and flight towards a target. In the case of lack of time the fighter-bombers can receive combat task not sooner then during the flight.

If between the time of call and arrival of group the situation has rapidly change, it is necessary to determine a new target. This carries out the commander of an air tactical division in accordance with the commander of army.

Precising the task to groups of fighter-bombers which are already in air, prohibition of assault or change of target, way of control on the target and checking timely arrival above the battlefield can be realized by the commander or liaison officer.

Conclusion:

An air tactical division is determined for protection and support of army. The mentioned tasks can be fulfilled independently (in benefit of infantry corps or division) or in close cooperation with neighbour air tactical divisions, eventually by divisions of other branches of airforce.

The task of protection of army before air reconnaissance and blows of the hostile airforce and pilotless means of air attack is one of the main tasks of the fighter airforce.

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The task of support of the army's fight which fulfils the air tactical division according to demands of the army's commander, is of the same importance.

An air tactical division receives tasks by the character of combat activity either for one day or for a larger period of combat activity. The tasks are fulfilled according to the plan of combat activity and table of plan of cooperation with army.

The tasks of protection according to the situation are fulfilled either out of readiness on airfield, by barraging or by combination of both the cases of combat activity. The tasks of protection are mostly fulfilled on call and by activity of line by line.

A supposition of successful protection of army before blows of the hostile airforce and pilotless means of air attack, is an effective cooperation of air tactical division with army, especially with the means of active air defence from the ground. Effect of a few weapons of the active air defence in the same space of combat activity desires that the commander of an air tactical division has either himself to take part in organization of cooperation, or he must receive the needed orders for cooperation from his superior commander.

As organization and performing of cooperation with combined branch large units is complicated the commander of an air tactical division protecting and supporting army and his staff must fit these demands:

- to know the task and tactics of supported large unit while attack and in defence,
- to know the enemy's tactics, ways of activity which he uses on the battlefield and in rear logistics),
- to know the tactics of combat activity of hostile airforce,
- to be able not only to organize cooperation of airforce with army but also to ensure continuous cooperation under any condition.

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Only complete fulfilling of mentioned demands together with knowledge of combat abilities of own kind of airforce can ensure successful cooperation of airforce with army in any even most complicated situation of combined branch and defensive fight.

- While defence

The main task of an air tactical division which defence is repulsion of blows of the hostile airforce and pilotless means of air attack and annihilation of air-borne troops of the enemy.

Organization of fight of own fighter airforce with the enemy will depend on character of activity of hostile airforce, on degree of predominance in air, on magnitude of the space of combat activity of air tactical division and abilities of own means of reconnaissance of air space of the enemy to perform timely discovering of planes and pilotless means of air attack and informing own fighter-bomber airforce.

The main means of fight of the fighter airforce with the hostile airforce and pilotless means is still attacking at the hostiles planes on accessible ways to own troops and objects out of barraging and out of readiness.

The fighter airforce of air tactical division protecting the units of combined-branch large unit must not only within own preparation, but also withing time of airforce preparation of assault protects army before blows of the hostile airforce and before blows of the hostile airforce and pilotless means of air attack.

During protective fight the main task of the fighter airforce determined for protection of army is to prevent blows on troops performing counter-assault on counter-blows in cooperation with anti-aircraft artillery.

Furthermore the fighter airforce in cooperation with the anti-aircraft artillery has to destroy air blocking of enclosed troops and while successful counter-attack of own troops to block together with the antiaircraft artillery enclosed hostile troops.

The fighter-bombers will fulfil during defensive fight of army main tasks:

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- in period of preparation of enemy for attack:

- annihilation of the enemy while his approaching the front, in the spaces of his concentration and in initial position for attack,
- to carry out air reconnaissance with the aim to discover assemblies of the hostile troops, fire means, and movements along the communication means,
- annihilation of manpower and technique prepared for assault in cooperation with the artillery;

- while airforce counter- preparation

- annihilation of manpower prepared in initial position for assault, annihilation of second lines and reserves,
- annihilation of hostile tank and artillery,
- annihilation of the command posts, communication centres, ammunition stores and fuel stores;

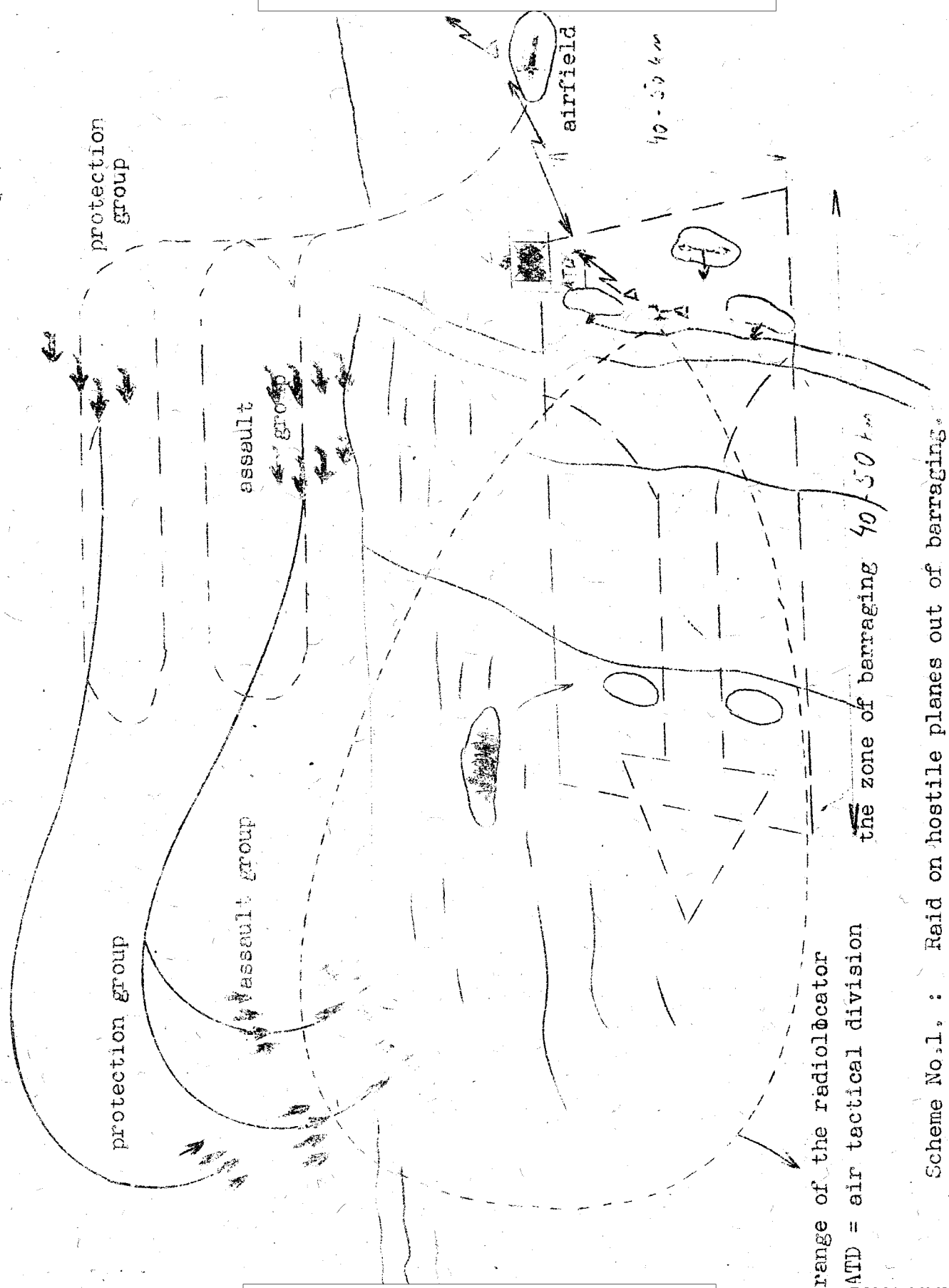
- while opening assault and fight in the main zone of defence

- repulsion of hostile assaults, annihilation of the second lines,
- prevention of reserve and material delivery to the battlefield,
- annihilation of units which have penetrated our defence,
- annihilation of hostile air-borne troops,
- air reconnaissance,
- annihilation and neutralizing of hostile fire means and tanks which prevent to carry out counter-attack.

For fulfilling these tasks the air tactical division is not sufficient and therefore support and fulfilment of the mentioned tasks must be carried out in cooperation with the fighter-bomber airforce.

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Scheme No.1. : Raid on hostile planes out of barraging.

range of the radiolocator  
ATD = air tactical division

the zone of barraging 40-50 km

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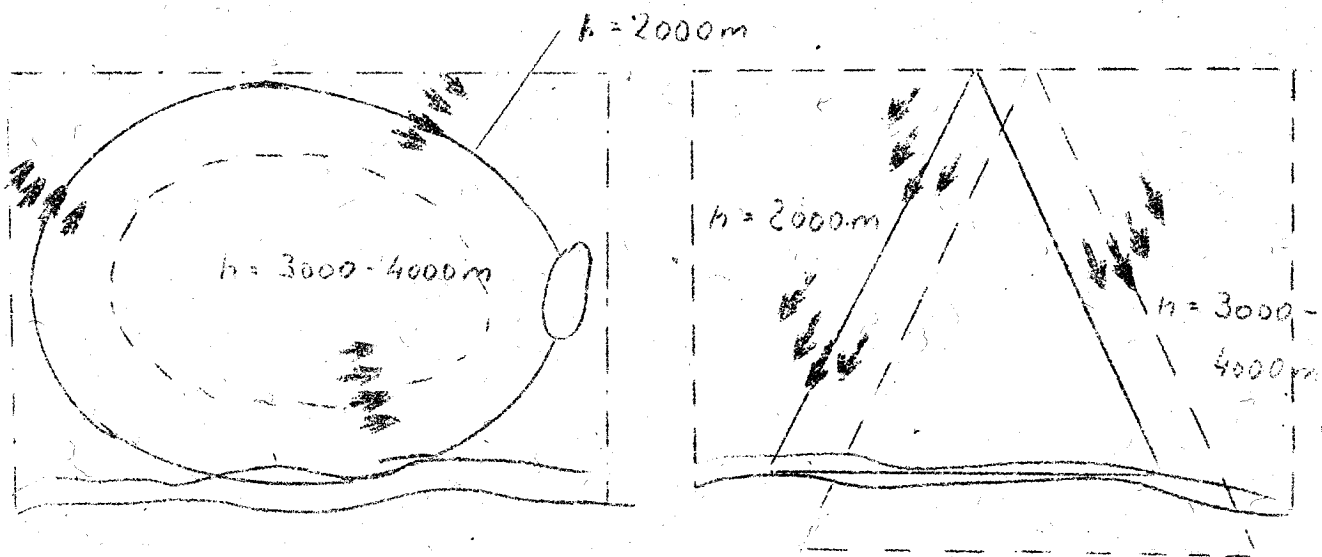
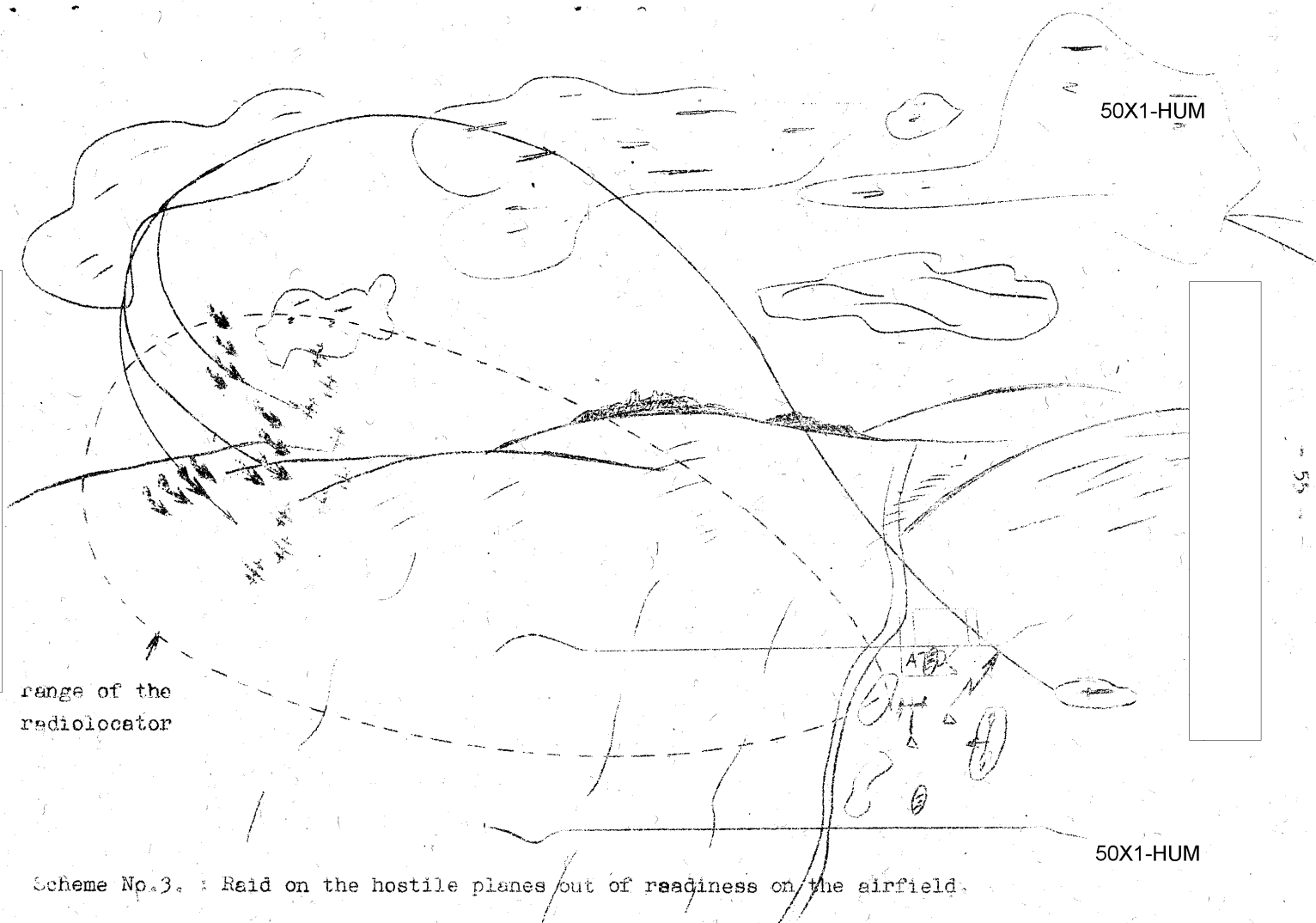


Fig. No.2. : Example of various ways of barraging  
( heights of barraging - a real case )

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